

(No Model.)

E. L. KNOPP.  
ROLL PAPER CUTTER.

No. 394,121.

Patented Dec. 4, 1888.

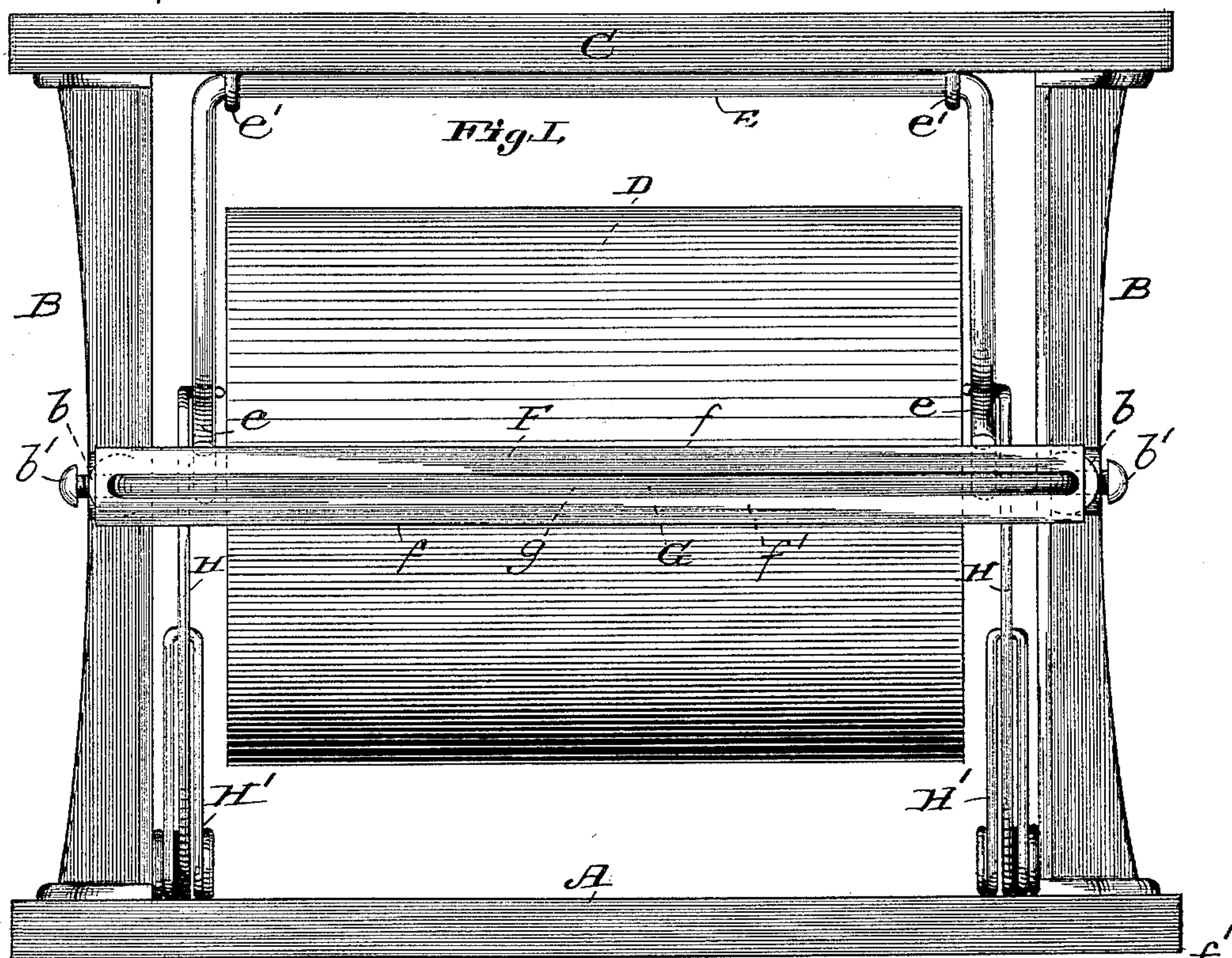


Fig. 2.

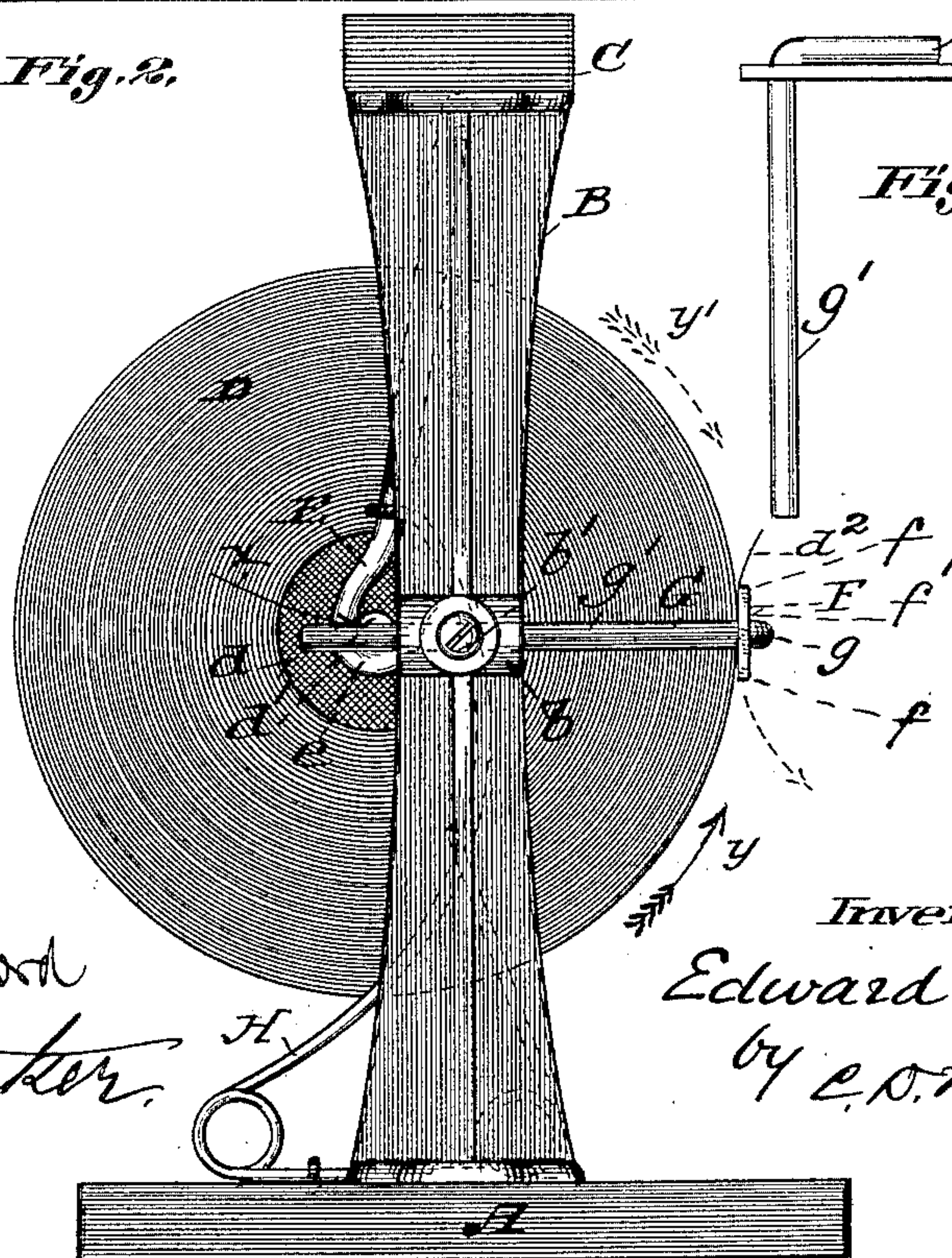
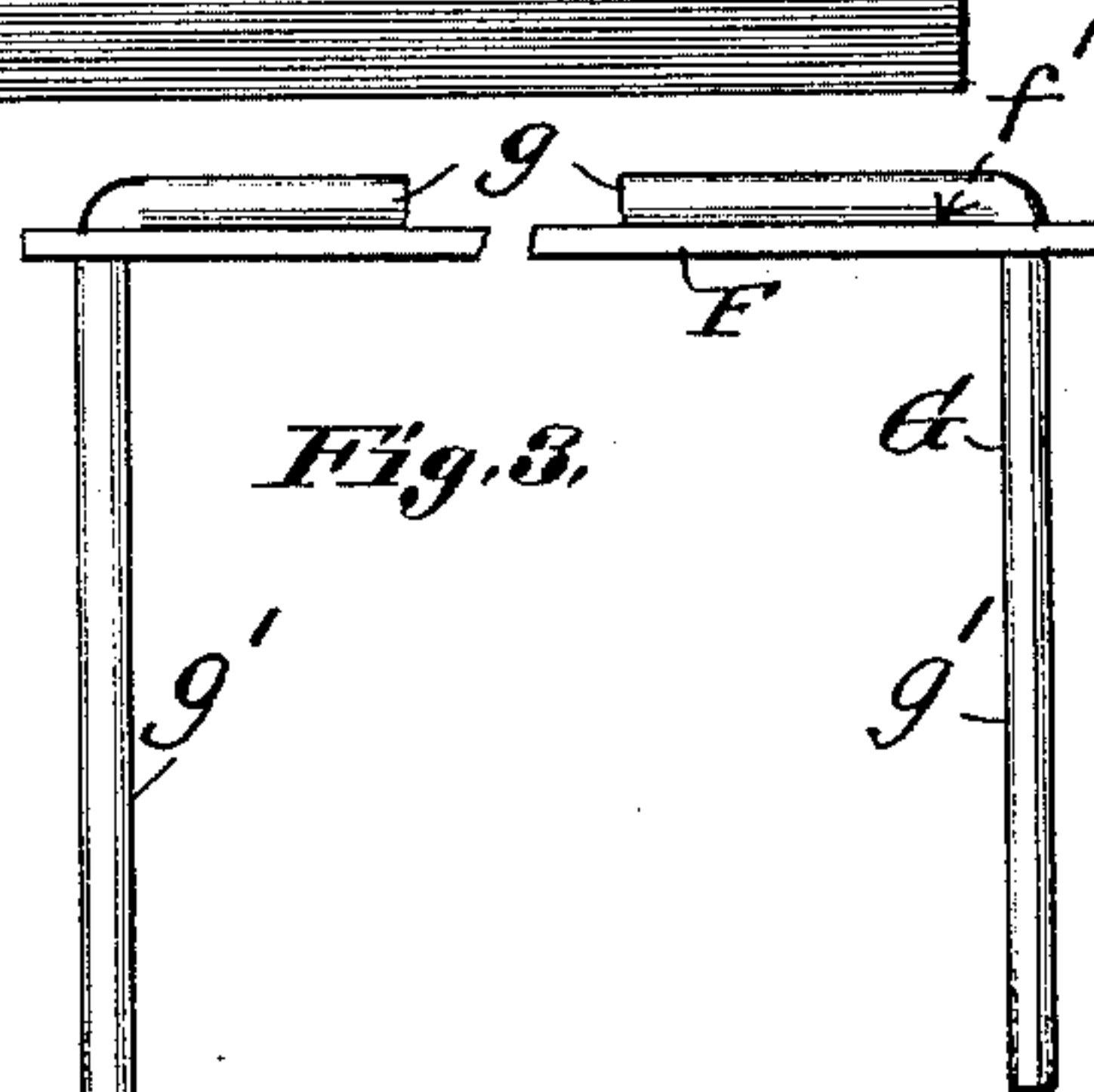


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## ROLL-PAPER CUTTER.

SPECIFICATION forming part of Letters Patent No. 394,121, dated December 4, 1888.

Application filed September 8, 1888. Serial No. 284,890. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD L. KNOPP, of St. Louis, Missouri, have made a new and useful Improvement in Roll-Paper Cutters, of which the following is a full, clear, and exact description.

The improvement relates to the roll-hanger, in combination with the knife and the means for keeping the roll in contact with the knife. The knife and its holder also constitute a feature of the improvement irrespective of the particular means shown for supporting the roll.

The most desirable mode of carrying out the improvement is shown in the annexed drawings, making part of this specification, in which—

Figure 1 is a front elevation, and Fig. 2 an end elevation, of the improved cutter; and Fig. 3, a detail, being a top view of the knife and holder.

The same letters of reference denote the same parts.

The frame-work of the cutter consists of the base A, the uprights B B, and the top plate, C, substantially as shown.

D represents the roll of paper, wound in the customary manner upon a roller, *d*, having at each end the usual gudgeon, *d'*, Fig. 2. As thus far described, the construction is a familiar one, saving the modification in the uprights, presently described.

E represents a hanger, which sustains the roll D. It is a swinging one, attached above to the upper part of the frame-work, and having its lower ends, *e e*, suitably shaped to form bearings to receive the roll-gudgeons *d'*, respectively, and all so that the roll D can be swung between the uprights B B toward and from the knife F. The most desirable mode of constructing the hanger is from a piece of wire or wire rod, bent into the U shape shown and journaled in the bearings *e' e'* in the under side of the top plate, C, substantially as shown in Fig. 1.

The knife F is a flat strip extending past the side of the roll D to come at its ends, respectively, opposite the uprights B B, and supported in position for the paper web *d<sup>2</sup>*, Fig. 2, to be drawn past either edge *f* or *f'* of

it by means of the holder G. This holder consists of a U-shaped rod, having its middle portion, *g*, long enough to reach from upright B to upright B, and having its sides *g' g'* held in bearings *b b* respectively in the uprights—that is, the holder sides *g' g'* are passed through perforations or any suitable bearings in the uprights, respectively, and so that they can be adjusted therein to hold the knife, which is strong upon the holder with its outer face, *f'*, against the portion *g* of the holder, as shown, nearer to or farther from the uprights, as may be desired. Set-screws *b' b'* are used to secure the holder sides *g' g'* after they have been adjusted.

The roll D, until a portion of it has been consumed, bears, as indicated by the arrow *x*, Fig. 2, against the inner face of the knife, and more particularly against the middle portion vertically of such inner face, and to sever a portion of its web it—the web—is drawn past the cutting-edge of the knife. The roll may be adjusted, as indicated by the arrows *y* and *y'*, Fig. 2, respectively, to unwind in either direction, and so that the end of the web may be drawn either downward or upward. As the roll diminishes in diameter, means, such as the springs II II', are brought into requisition to keep the roll against the knife. The springs are preferably of the compound form shown, the spring II acting directly against the roll-hanger and the springs II' acting against the springs II, all substantially as shown. This compound spring is useful, especially in connection with long rolls D. The knife can turn on the holder-sides to present itself sidewise to the roll D, and the holder portion *g* braces the knife.

I claim—

1. The combination of the frame, the roll, the hanger, and the knife, said hanger being swung from the upper part of the frame, and said knife being held by the adjustable holder, substantially as described.

2. The combination of the frame, the roll, the swinging hanger, the knife and its U-shaped adjustable holder, and the springs, substantially as described.

3. The combination of the frame A B C, the roll D, the hanger E, journaled in the bear-

ings *e' e'* and supporting the roll, as described, the knife, the U-shaped holder G, the set-screws, and the springs, substantially as described.

- 5 4. The combination, in a roll-paper cutter, of the frame, the roll, the knife F, and the holder G, said knife being strung upon said holder and against its middle portion, and the  
10 frame, substantially as described.

5. The combination of the frame, the roll, the swinging hanger, and the compound springs H H', substantially as described.

Witness my hand.

EDWARD L. KNOPP.

Witnesses:

C. D. MOODY,

D. W. A. SANFORD.